



Agile Methods: Tools, Techniques, and Practices for the DoD Community

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See her full bio at:

www.sei.cmu.edu/go/agile-research-forum/



Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE 22 MAY 2012		2. REPORT TYPE		3. DATES COVERED 00-00-2012 to 00-00-2012	
4. TITLE AND SUBTITLE Agile Methods: Tools, Techniques, and Practices for the DoD Community				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Carnegie Mellon University ,Software Engineering Institute,Pittsburgh,PA,15213				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 16	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Agenda

The Problem

Setting the context

Our Journey

Solving the problem

Differences Between Traditional and Agile Methods

Comparing cultural elements



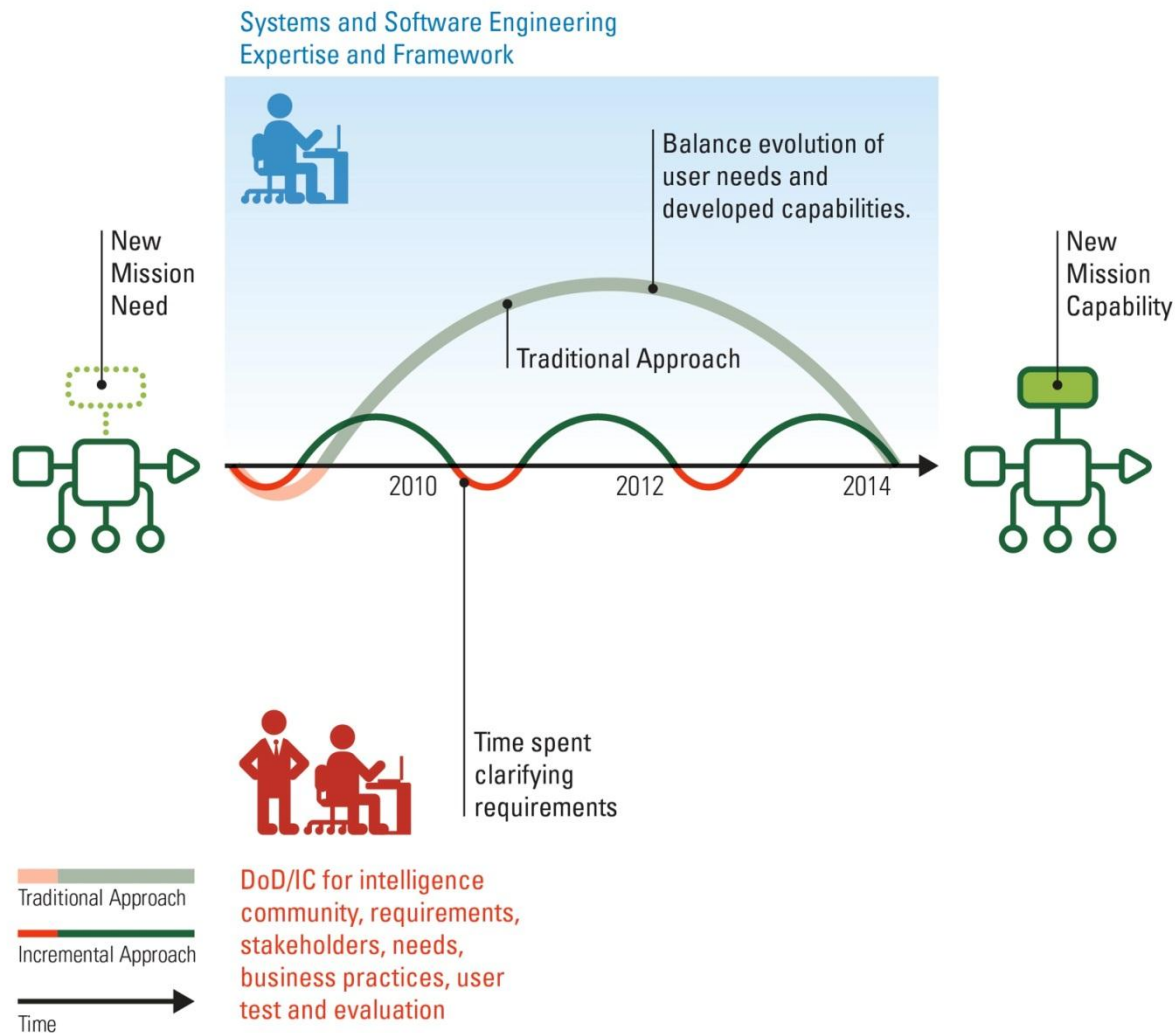
Polling Question

Please identify yourself as one of the following:

- DoD Program Office
- Federal Program Office (non-DoD)
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- Consultant for tools/process
- Other

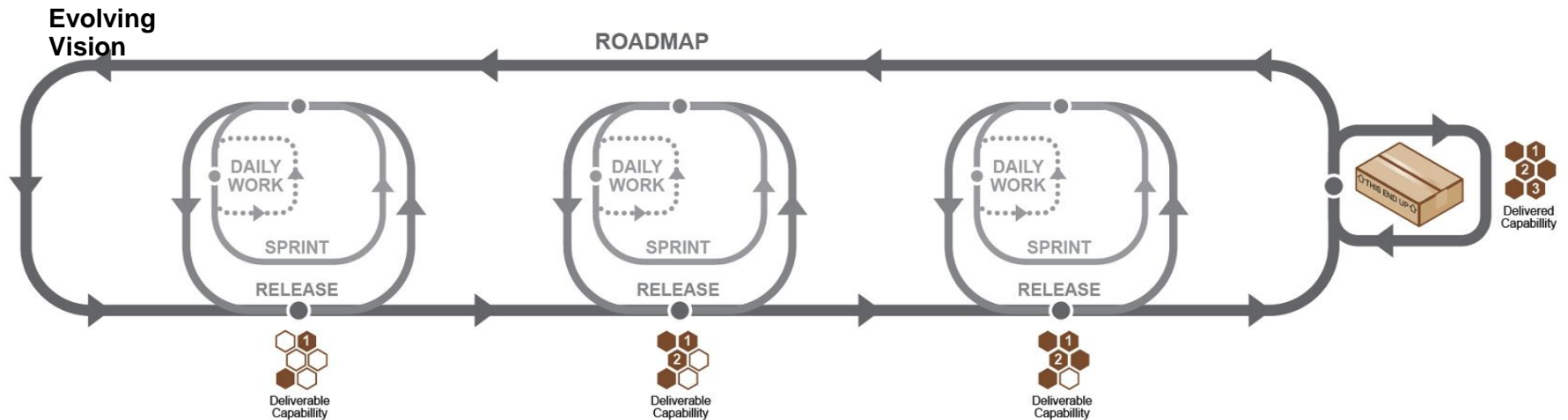
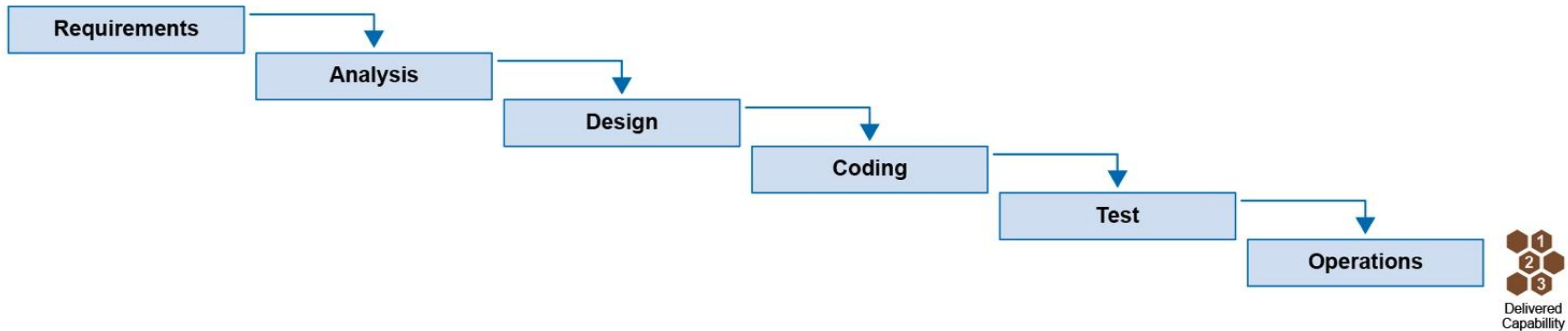


Acquisition and Innovation

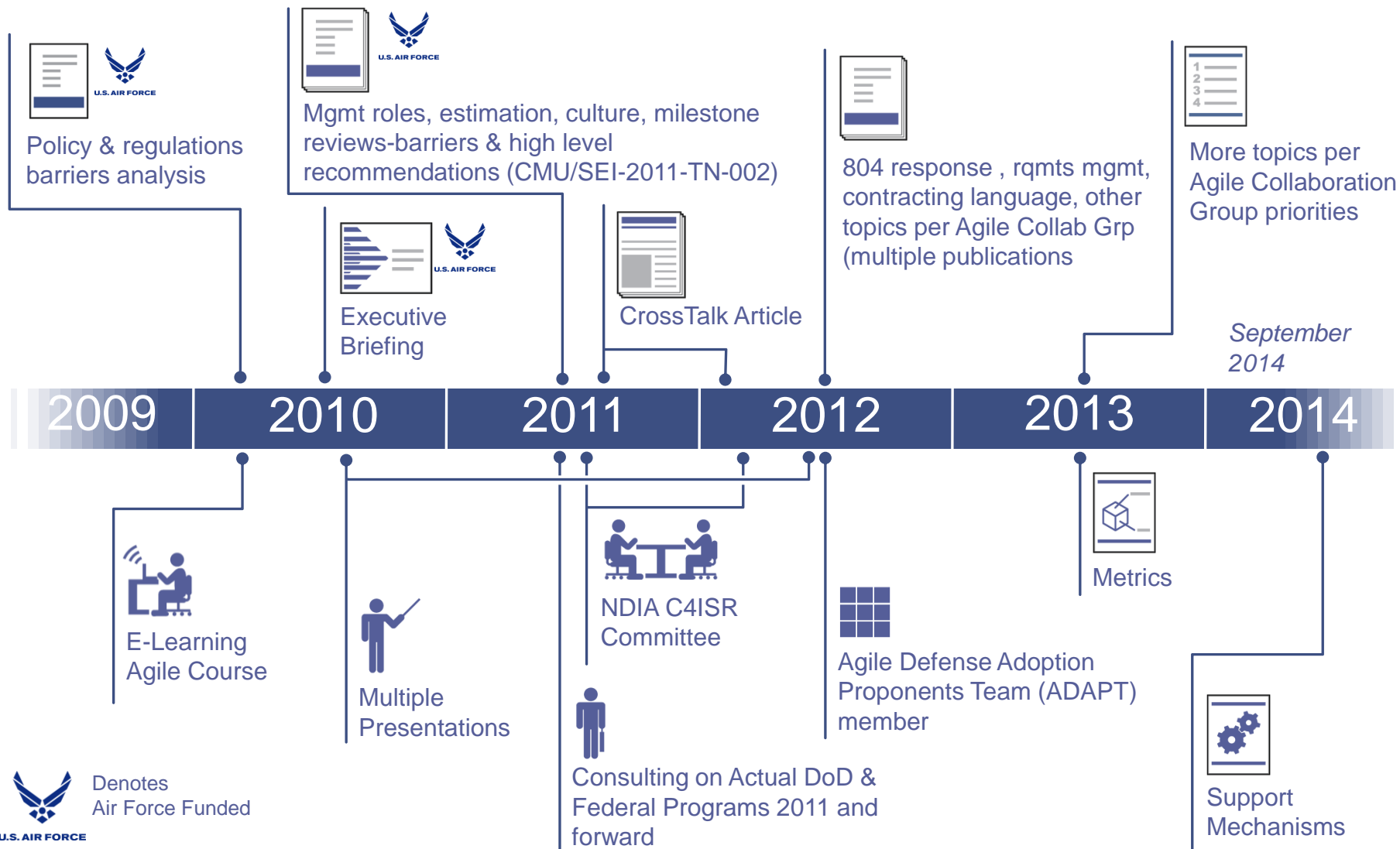


Alternate Worlds

Fixed Vision



SEI ASP Agile Portfolio FY10 -14 (Our Journey)

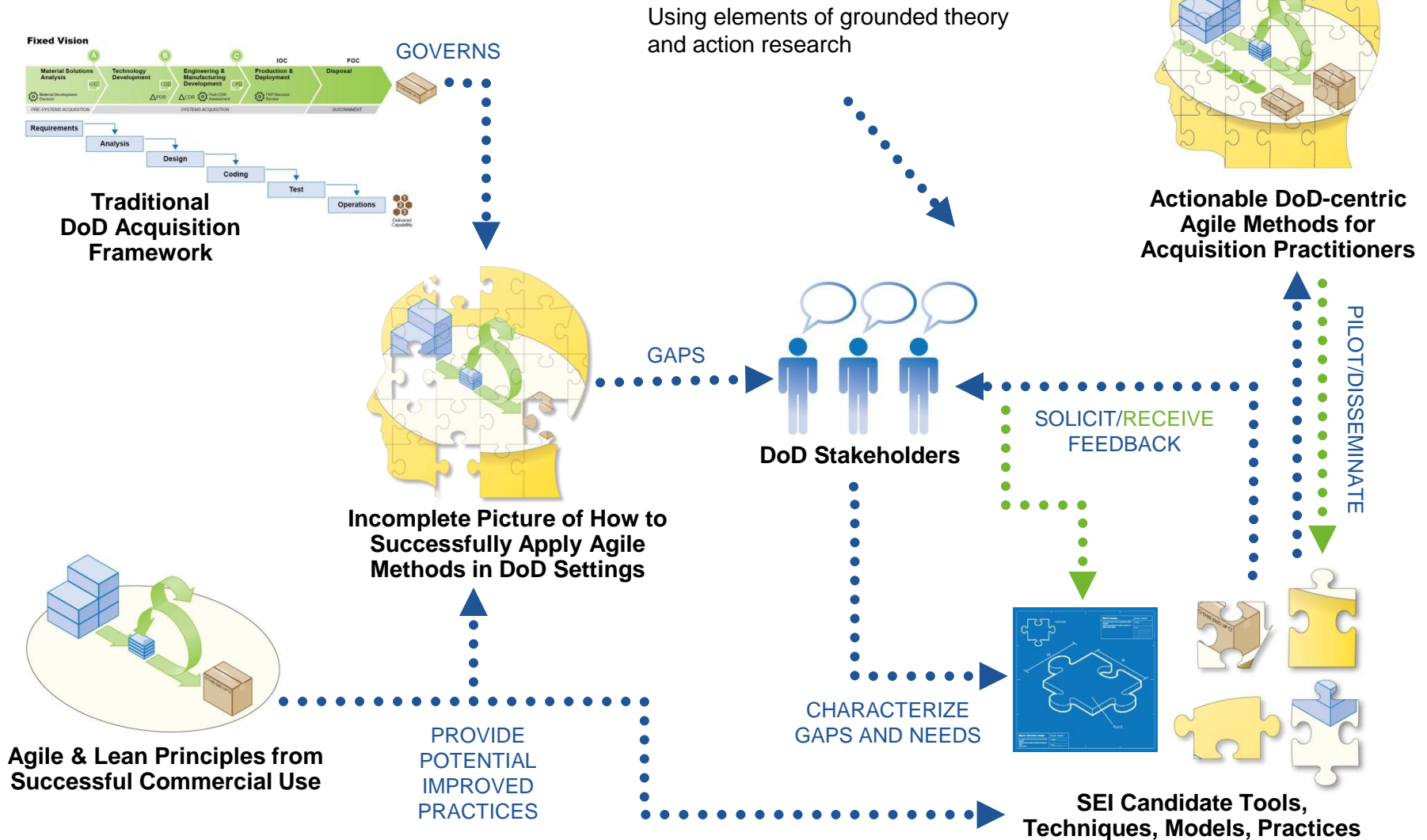


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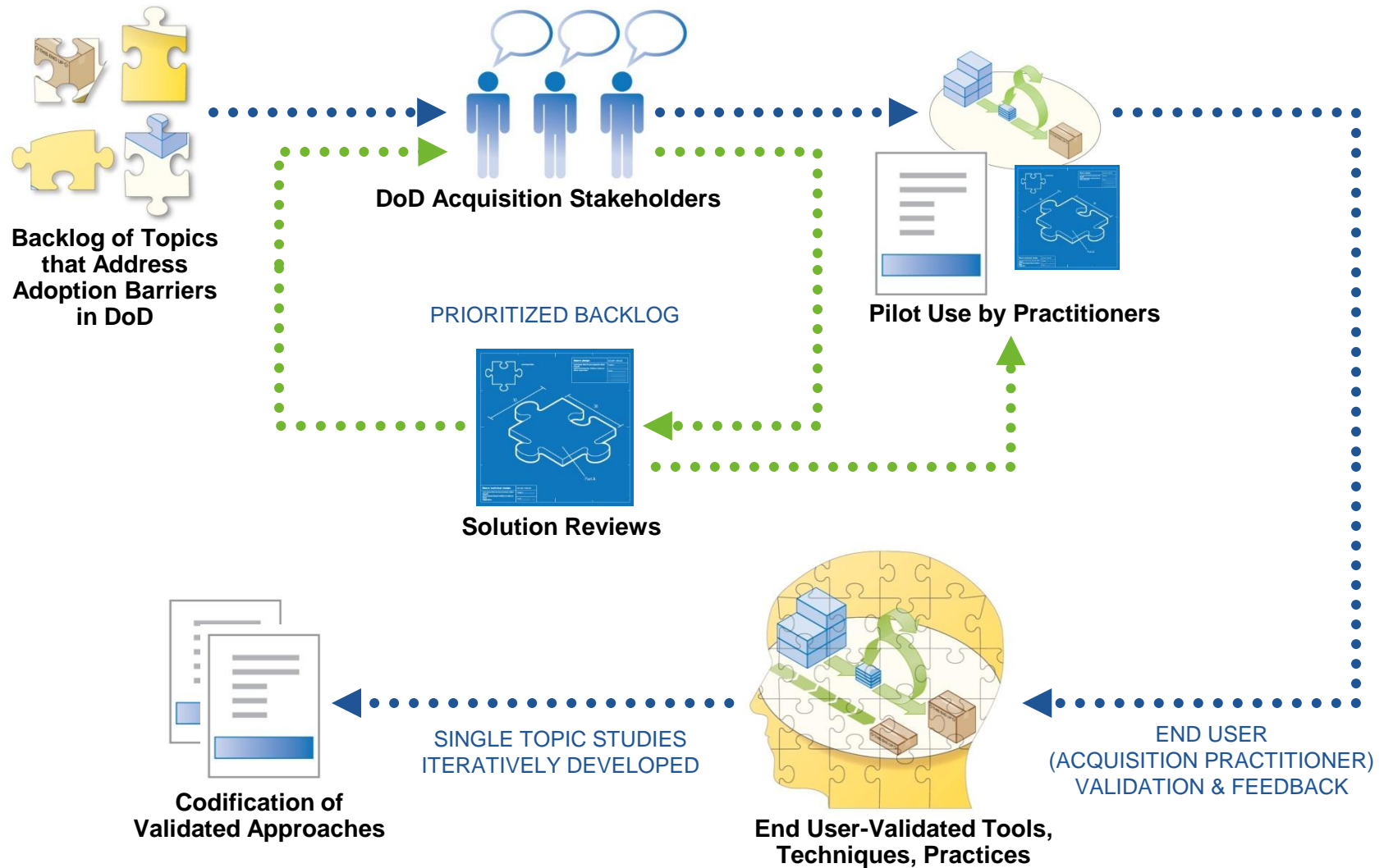
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Guiding Scenario



Using Agile Methods to Study Agile Methods



What is different about lean/agile methods from basic incremental delivery?

Traditional Incremental Delivery

Developer-Acquirer relationship at arm's length

Hierarchical, command-and-control based teams

Leader as keeper of the vision and primary source of authority to act

Traditional, representational documents used by PMO to oversee the progress of the developer

Lifecycle model with separate teams, particularly for development and test; some IPTs to involve multiple functions

Agile Methods

Develop-Acquirer-End User collaboration

Collocated teams or strong communication mechanisms when teams are distributed

Facilitative leadership and leader as champion and team advocate

“Just enough” documentation, highly dependent on product context

Cross-functional teams including all roles across the lifecycle throughout the lifespan of the project

<http://www.sei.cmu.edu/library/abstracts/reports/11tn002.cfm?DCSext.abstractsource=SearchResults>




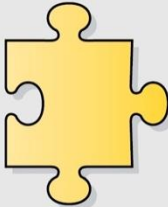
Polling Question

How Big a Challenge is Your Adoption of Agile Practices?

- large, we need a culture change
- medium, we are running into issues
- small, we are mostly ready
- no challenge at all



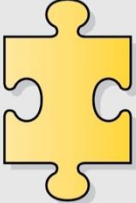

Comparison of Agile and Traditional DoD Cultural Elements₁

Knowledge Piece	Method	
Organizational Structure 	Agile DoD <ul style="list-style-type: none">• Flexible and adaptive structures• Self-organizing teams• Collocated teams or strong communication mechanisms when teams are distributed	Traditional DoD <ul style="list-style-type: none">• Formal structures that are difficult to change• Hierarchical, command-and-control-based teams• Integrated product teams that have formal responsibilities
Leadership Style 	Agile DoD <ul style="list-style-type: none">• Facilitative leadership• Leader as champion and team advocate	Traditional DoD <ul style="list-style-type: none">• Leader as keeper of vision• Leader as primary source of authority to act

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Comparison of Agile and Traditional DoD Cultural Elements₂

Knowledge Piece	Method	
Rewards System 	Agile DoD <ul style="list-style-type: none">• Team is focus of reward systems• Sometimes team itself recognizes individuals	Traditional DoD <ul style="list-style-type: none">• Individual is focus of the reward system
Staffing Model 	Agile DoD <ul style="list-style-type: none">• Cross-functional teams including all roles across the life cycle throughout the lifespan of the project• Includes an Agile advocate or coach who explicitly attends to the team's process	Traditional DoD <ul style="list-style-type: none">• Uses traditional life-cycle model with separate teams, particularly for development and testing• Different roles are active at different defined points in the life cycle and are not substantively involved except at those times

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Comparison of Agile and Traditional DoD Cultural Elements₃

Knowledge Piece	Method	
Communications & Decision Making 	Agile DoD <ul style="list-style-type: none">• Daily stand-up meetings• Frequent retrospectives to improve practices• Information radiators to communicate critical project information• Evocative documents to feed conversation• “Just enough” documentation, highly dependent on product context	Traditional DoD <ul style="list-style-type: none">• Top-down communication structures dominate• External regulations, policies and procedures drive the focus of work• Indirect communications, like documented activities and processes, dominate over face-to-face dialogue• Traditional, representational documents used by the PMO throughout the development life cycle to oversee the progress of the developer• PMO oversight tools focused on demonstrating compliance vs. achieving insight into progress

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Agile Work – Published and in Process

Published

- **Considerations for Using Agile in DoD Acquisition**
<http://www.sei.cmu.edu/library/abstracts/reports/10tn002.cfm?DCSext.abstractsource=SearchResults>
- **Agile Methods: Selected DoD Management and Acquisition Concerns**
<http://www.sei.cmu.edu/library/abstracts/reports/11tn002.cfm?DCSext.abstractsource=SearchResults>
- **A Closer Look at 804: A Summary of Considerations for DoD Program Managers**
<http://www.sei.cmu.edu/library/abstracts/reports/11sr015.cfm?DCSext.abstractsource=SearchResults>
- **DoD Agile Adoption: Necessary Considerations, Concerns, and Changes**
<http://www.crosstalkonline.org/issues/janfeb-2012.html>

In Process Topics

- Information Assurance
- Requirements
- Contracting language and contract types
- Contingency Model (Readiness and Fit to use agile)
- Programmatic
- Guide to Agile terminology from a traditional viewpoint



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